

PORTATONE

PSR-64

Owner's Guide

YAMAHA

Congratulations!

You are the proud owner of a Yamaha PortaTone. Your PortaTone is a high-quality musical instrument that incorporates advanced Yamaha digital technology and many versatile features. In order to obtain maximum performance and enjoyment from your PortaTone, we urge you to read this Owner's Guide thoroughly while trying out the various features described. Keep the Owner's Guide in a safe place for later reference.

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1. BEFORE YOU BEGIN

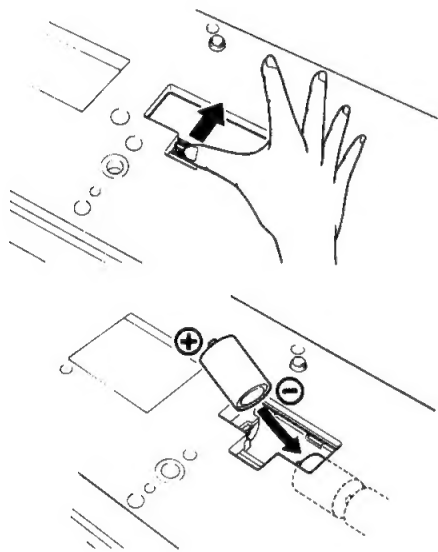
Power Supply

Your PSR-64 will run either from batteries or the optional power adaptor. Follow the instructions below according to the power source you intend to use.

Using Batteries

Six 1.5V SUM-1, "D" size, R-20 or equivalent alkaline batteries (sold separately) must first be installed in the PSR-64 battery compartment.

1. Open the battery compartment cover located on the instrument's bottom panel.
2. Insert the six batteries, being careful to follow the polarity markings on the inside of the compartment.
3. Replace the compartment cover, making sure that it locks firmly in place.



Caution:

1. When the batteries run down, replace them with a complete set of six new batteries. NEVER mix old and new batteries.
2. To prevent possible damage due to battery leakage, remove the batteries from the instrument if it is not to be used for an extended period of time.

Using an Optional Power Adaptor

For AC Mains Power

Use ONLY a Yamaha PA-4 or PA-40 AC Adaptor to power your instrument from the AC mains. Refer to "Rear-panel Jacks" on page 4 for more details.

Setting Up the Music Stand

Insert the two pegs protruding from the bottom edge of the music stand into the two holes located at the top of the PSR-64 control panel.

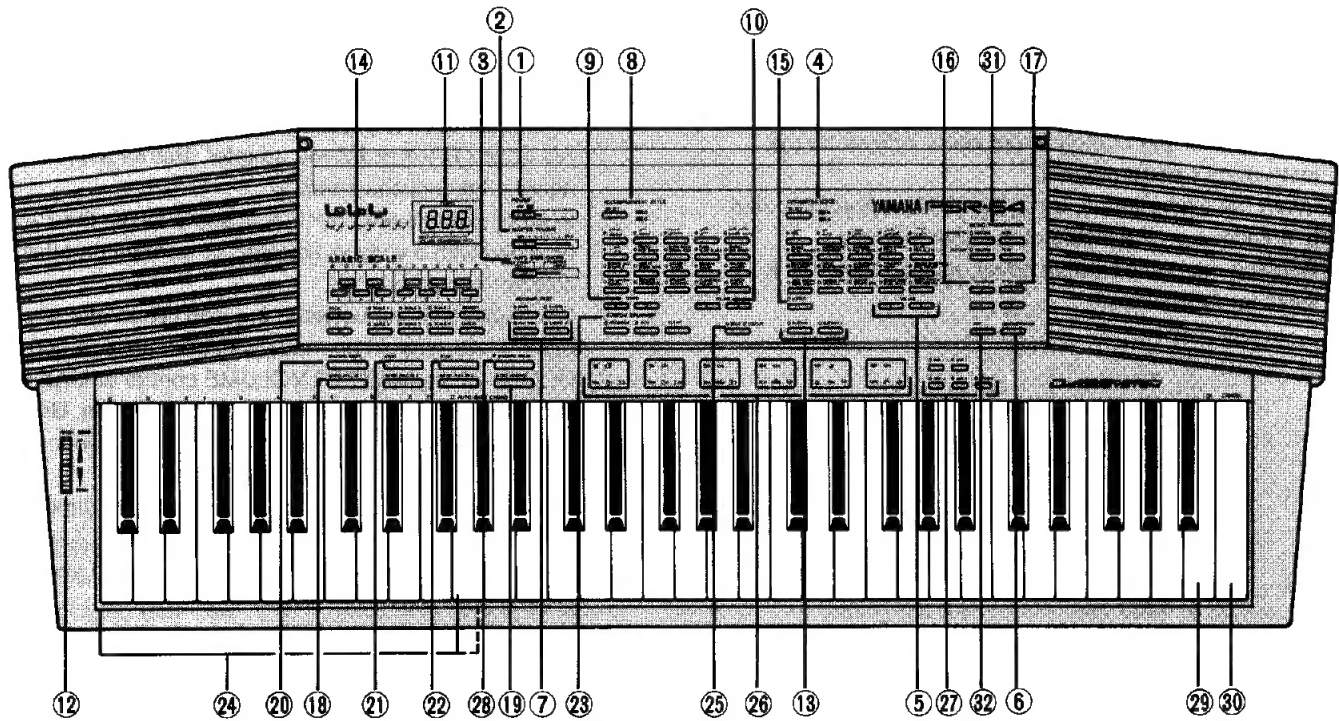
Taking Care of Your PortaTone

Your PortaTone will remain in excellent playing condition if care is taken concerning the following.

1. When you use AC power, be sure to use the optional AC Power PA-4 or PA-40 adaptor. Before use, read the adaptor instructions carefully. In particular, please note that in some cases the PA-4 is provided with a voltage selector, so confirm that this selector is correctly set.
2. Connections made between the PortaTone and any other device should be made with both units turned off.
3. DO not set the MASTER VOLUME control at MAX when you connect the PortaTone to a stereo system. Use the stereo system's volume control to adjust the sound level.
4. Avoid placing the instrument in excessively humid areas.
5. Do not subject the unit to physical shock, and avoid placing anything heavy on it.
6. The PortaTone should not be placed in direct sunlight for a long time.
7. Do not place the instrument near any heating appliance, or leave it inside a car in direct sunlight for any length of time. Direct sunshine can raise the interior temperature of a car with closed doors and windows to as high as 80°C. Temperatures in excess of 60°C can cause physical and/or electrical damage not covered by warranty.
8. Use a dry or damp cloth for cleaning.

2. NOMENCLATURE

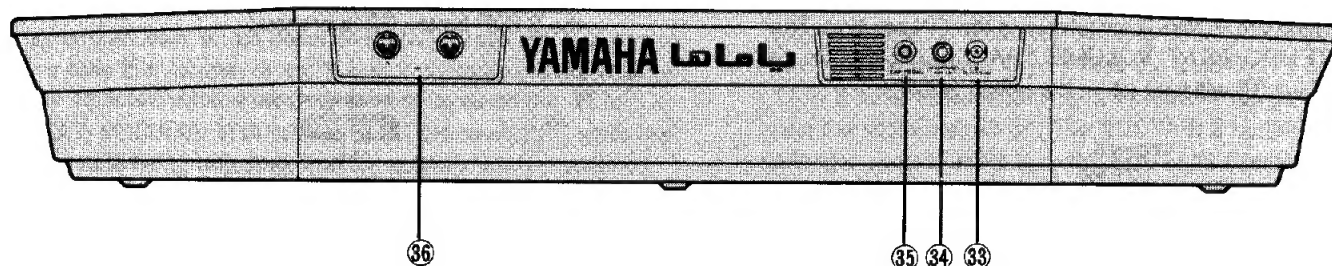
Top Panel Controls



- ① POWER Switch (page 5)
- ② MASTER VOLUME Control (page 5)
- ③ AUTO BASS CHORD Selector (page 8, 12 and 13)
- ④ ORCHESTRA VOICE SELECT Buttons (page 6)
- ⑤ VOICE VOLUME Controls (page 5)
- ⑥ DEMONSTRATION Button (page 5)
- ⑦ ACCOMPANIMENT PART Buttons (page 13)
- ⑧ ACCOMPANIMENT STYLE SELECT Buttons (page 10)
- ⑨ TEMPO Controls (page 10)
- ⑩ ACCOMPANIMENT VOLUME Controls (page 10)
- ⑪ TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH Display (page 6, 7 and 10)
- ⑫ PITCH BEND Wheel (page 6)
- ⑬ SUSTAIN Effect Buttons (page 6)
- ⑭ ARABIC SCALE Section (page 9)
- ⑮ LOWER Button (page 8)

- ⑯ TRANSPOSE Buttons (page 7)
- ⑰ PITCH Buttons (page 7)
- ⑱ INTRO/ FILL IN Buttons (page 11)
- ⑲ INTRO/ ENDING Button (page 11)
- ⑳ SYNCHRO START Button (page 10)
- ㉑ START Button (page 10)
- ㉒ STOP Button (page 11)
- ㉓ CUSTOM DRUMMER Section (page 15)
- ㉔ Auto Bass Chord Keys (page 8)
- ㉕ SOLO STYLEPLAY Button (page 14)
- ㉖ Percussion Pads (page 15)
- ㉗ Percussion Variation Buttons (page 15)
- ㉘ SYNCHRO BREAK Button (page 15)
- ㉙ Percussion Accent Key (>) (page 16)
- ㉚ Percussion CANCEL Key (page 16)
- ㉛ MUSIC PROGRAMMER Section (page 17 and 18)
- ㉜ MIDI Button (page 20)

Rear Panel Connectors



33 DC IN (9–12V) Jack

The DC output cord from the optional Yamaha PA-4/PA-40 Power Adaptor should be plugged in here when the PSR-64 is to be powered from the AC mains supply.

34 HEADPHONES/AUX. OUT Jack

A standard pair of stereo headphones can be plugged in here for private practice or late-night playing. The internal speaker system is automatically shut off when a pair of headphones is plugged into the HEADPHONE jack. The HEADPHONES/AUX. OUT jack can also be used to deliver the output of the PSR-64 to a keyboard amplifier, stereo hi-fi system, mixing console or tape recorder.

35 EXP. PEDAL Jack

If the optional EP-1 Expression Pedal is connected to this jack, the pedal can be used for volume (expression) control leaving both hands free to play the keyboard. Please note that the maximum volume is determined by the setting of the MASTER VOLUME control ②, and that the expression pedal only allows volume adjustment up to the MASTER VOLUME level.

36 MIDI IN and OUT Connectors

The MIDI IN connector receives MIDI data from an external MIDI device which can be used to control the PSR-64. The MIDI OUT connector transmits MIDI data generated by the PSR-64 (e.g. note and velocity data produced by playing the keyboard).

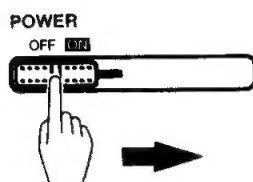
More details on MIDI are given in "MIDI FUNCTIONS" on page 19.

3. ENJOY THE DEMONSTRATION

To give you an idea of the PSR-64's sophisticated capabilities, it is programmed with a demonstration tune which play automatically.

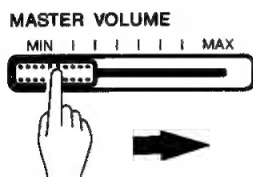
1. Switch ON

Slide the POWER switch ① to the ON position. The TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH displays ⑪ will light when the power is ON.



2. Set an Initial Volume Level

Slide the MASTER VOLUME control ② to a position about half way between the "MIN" and "MAX" setting. You can set this control for the most comfortable volume level after playback begins.



3. Press the DEMONSTRATION Button ⑥

The demonstration music will begin playing as soon as you press the DEMONSTRATION button.

The demonstration will play continuously, until the DEMONSTRATION button is pressed a second time or the STOP button ⑦ is pressed.



- * A different voice, tempo, transposition or other parameter can be selected at any time while the demonstration is playing (refer to the appropriate sections of this manual for instructions). Such changes, however, will only remain in effect until the next automatic voice change.

4. SELECTING AND PLAYING VOICES

Selecting a Voice

20 voice selectors are used to select the PSR-64's 40 different voices. Note that the indicator LED above each selector has two voice names printed to the right of it. The ORCHESTRA VOICE SELECT ④ button determines whether the upper or lower voices are selected. Each time the SELECT button is pressed, the upper and lower indicators to its right light alternately. When the upper indicator is lit, the upper voices can be selected and when the lower indicator is lit the lower voices can be selected.

To select a voice, first make sure that the appropriate SELECT indicator is lit — upper or lower — then press the selector corresponding to the desired voice.

ORCHESTRA VOICE

SELECT



قانون قانون	ناي كواله	مزيان مزيان	كمان أكورديون	وتريات أورغ
PIANO	HARPSICHORD	STRINGS	SYNTH STRINGS	FLUTE
ELEC PIANO	MARIMBA	PIZZ STRINGS	CELLO	PAN FLUTE
RECORDER	OBOE	HARMONICA	TRUMPET	BRASS ENSEMBLE
CLARINET	SAXOPHONE	BAGPIPE	HORN	PIPE ORGAN
JAZZ ORGAN	HUMAN VOX	GUITAR	BOWED BASS	REED SYNTH
REED ORGAN	WHISTLE	ACOUSTIC BASS	ELEC. BASS	ORCHESTRA HIT

The selected voice can now be played on the instrument's keyboard.

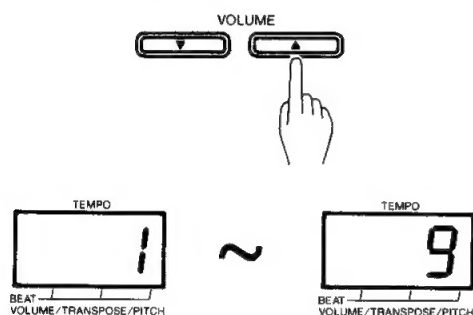
- * When the power is initially turned ON, the KANOUN (قانون) voice is automatically selected.

Adjusting the Volume

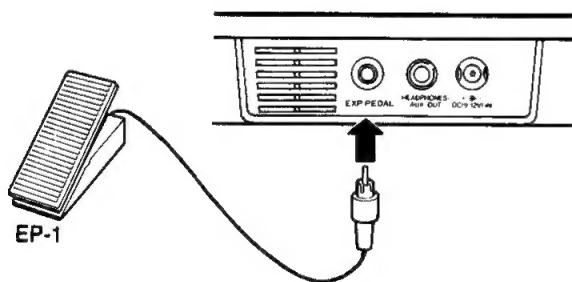
Adjust the MASTER VOLUME control ② while playing to set the desired overall volume level.

The VOICE VOLUME ▲ and ▼ buttons can also be used to adjust the volume of the selected voice in relation to the accompaniment (to be described later). Press the ▲ button to increase the volume, or the ▼ button to decrease the volume. The selected volume level will be displayed on the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display ⑪ while the volume is being adjusted, and for approximately 3 seconds after either VOLUME button is released.

The volume range is from 1 to 9, with 1 being the lowest volume and 9 the highest. The highest volume value can be recalled at any time by pressing both the VOICE VOLUME ▲ and ▼ buttons ⑤ at the same time (the volume is automatically set to 9 whenever the power switch is turned ON).



If you have connected the optional EP-1 Expression Pedal to the rear-panel EXP. PEDAL jack ⑮, the pedal can be used to produce swells and other expressive volume effects while playing. The maximum volume achievable with the expression pedal is determined by the setting of the MASTER VOLUME control.

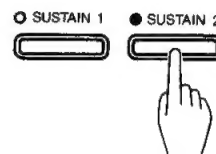


- * The PSR-64 features 8-note polyphony, so up to 8 notes can be played on the keyboard simultaneously when the automatic accompaniment, split, or dual voice features of this instrument are not used. The above mentioned features all reduce the number of available notes.

Adding Effects

SUSTAIN:

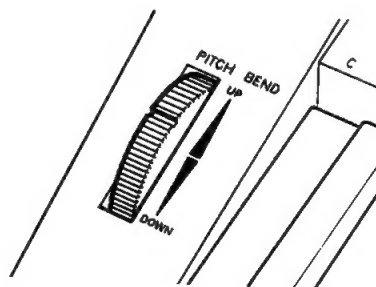
The PSR-64 offers two sustain effects – SUSTAIN 1 and SUSTAIN 2. Press the SUSTAIN 1 or SUSTAIN 2 button ⑬ once (the corresponding indicator will light) and notes played on the keyboard will decay gradually after you lift your fingers from the keys. Press the SUSTAIN 1 or SUSTAIN 2 button a second time (it's indicator will go out) to turn the sustain effect off. The SUSTAIN 2 button produces a longer sustain effect than the SUSTAIN 1 button, although the actual length of the SUSTAIN 1 and SUSTAIN 2 effects varies from voice to voice.



- * SUSTAIN 1 and SUSTAIN 2 cannot be selected simultaneously.
- * The SUSTAIN effects cannot be applied to accompaniment or rhythm.

PITCH BEND:

The PITCH BEND Wheel ⑫ located to the left of the keyboard offers extra expressive control by allowing you to manually "bend" (raise or lower) the pitch of the selected performance voice. Rotating the PITCH BEND Wheel away from you raises pitch, while moving it toward you lowers pitch. When released, the PITCH BEND Wheel automatically returns to the center (normal pitch) position. The total pitch bend range is approximately ± 200 cents (100 cents = one semitone).



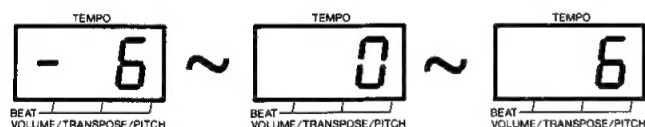
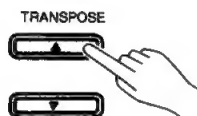
- * The PITCH BEND effect cannot be applied to accompaniment or rhythm, or the lower voice in the SPLIT mode.

Transposition: Shifting Pitch in Semitone Steps

The PSR-64 TRANSPOSE function makes it possible to shift the pitch of the entire keyboard up or down in semitone intervals up to a maximum of six semitones. "Transposing" the pitch of the PSR-64 keyboard makes it easier to play in difficult key signatures, and you can simply match the pitch of the keyboard to the range of a singer or other instrumentalist.

The TRANSPOSE ▲ and ▼ buttons (16) are used for transposition. Press the ▲ button to increase the pitch of the keyboard, or the ▼ button to lower the pitch. The selected degree of transposition will be displayed on the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display (11) while the TRANSPOSE ▲ or ▼ button is pressed, and for approximately 3 seconds after either TRANSPOSE button is released.

The transposition range is from -6 to 6, with -6 corresponding to downward transposition by 6 semitones, and 6 corresponding to upward transposition by 6 semitones (see chart below). 0 is the "normal" keyboard pitch value. The normal transpose value (0) can be recalled at any time by pressing both the TRANSPOSE ▲ and ▼ buttons at the same time (the transpose value is automatically set to 0 whenever the power switch is turned ON).

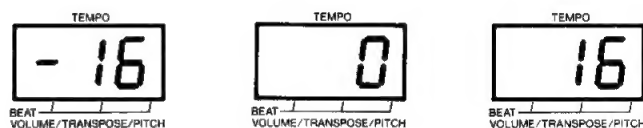
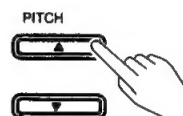


Display	Transposition	Display	Transposition
-6	-6 semitones	1	+1 semitone
-5	-5 semitones	2	+2 semitones
-4	-4 semitones	3	+3 semitones
-3	-3 semitones	4	+4 semitones
-2	-2 semitones	5	+5 semitones
-1	-1 semitone	6	+6 semitones

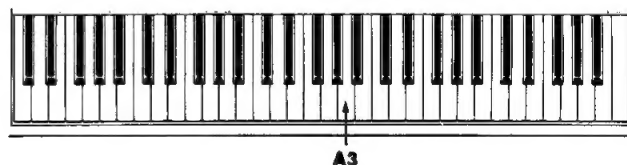
Tuning: Fine Pitch Control

Pitch control makes it possible to tune the PSR-64 over a ± 50 -cent range in approximately 3-cent intervals. A hundred "cents" equals one semitone, so the tuning range provided allows fine tuning of overall pitch over a range of approximately a semitone. Pitch control is useful for tuning the PSR-64 to match other instruments or recorded music. Press the PITCH ▲ button (17) to tune up, or the PITCH ▼ button to tune down. The selected degree of tuning will be displayed on the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display (11) while the PITCH ▲ or ▼ button is pressed, and for approximately 3 seconds after either PITCH button is released.

The tuning range is from -16 to 16, with -16 corresponding to downward tuning by approximately 50 cents (one quarter tone), and 16 corresponding to upward tuning by approximately 50 cents.



0 is the "normal" pitch value, at which the A3 key (the A above middle C) produces "concert pitch": 440 Hertz. The normal pitch value (0) can be recalled at any time by pressing both the PITCH ▲ and ▼ buttons at the same time (the pitch value is automatically set to 0 whenever the power switch is turned ON).



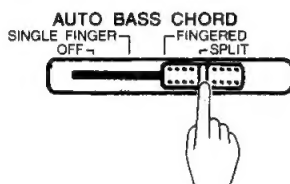
The SPLIT Mode: Separate Left- and Right-hand Voices

The PSR-64 allows you to play two voices at once — one with the left hand and one with the right. The lower voice can be played on the Auto Bass Chord keys, up to the "J" marking immediately above the keyboard. The "J" marking is called the SPLIT POINT.

* An alternative split point is also available. See "Alternative Split Point Selection", below.

1. Select the SPLIT Mode

Slide the AUTO BASS CHORD selector ③ to the SPLIT position.



2. Press the LOWER Button ⑮

The LOWER button LED will light, indicating that it is now possible to select a voice for the lower keyboard (i.e. the Auto Bass Chord key section).



3. Select the Lower Voice

Select the lower voice using the normal voice selection procedure.

4. To Select an Upper Keyboard Voice

Press the LOWER button ⑮ so that the LOWER button LED goes out, then select the desired upper voice.

5. Lower and Upper Voice Volume Control

In the SPLIT mode, the volume of the lower keyboard voice is controlled by the VOICE VOLUME buttons ⑤ when the LOWER button indicator ⑮ is lit, and the volume of the upper voice is controlled by the VOICE VOLUME buttons when the LOWER button indicator is out. Use the LOWER button to select the desired mode for volume control.

* The indicator of currently selected lower voice will light while the LOWER button ⑮ is pressed. The upper-voice indicator is lit normally.

- * In the SPLIT mode, the maximum number of notes that can be played simultaneously on the upper keyboard is 4.
- * If the SPLIT mode is selected when the power switch ① is turned ON, the KANOUN (قانسون) voice is automatically selected for both the upper and lower keyboard.

Alternative Split Point Selection

Normally the split point is automatically set at the "J" symbol (between the F#2 and G2 keys), as described above. An alternative split point is provided between the G#2 and A2 keys, however, and this can be selected by moving the AUTO BASS CHORD selector to any position other than "OFF" while holding the G#2 key.

5. PROGRAMMING AND USING ARABIC SCALES


The PSR-64's Arabic Scale feature allows you to simply and easily lower certain notes (one or several) in the regular scale by a quarter tone and thereby set your own Arabic scale. You can change the scale setting at any time — even while playing — adjust the pitch of the lowered note, and independently store 6 types of "customized" Arabic scales in the keyboard's memory for use whenever you want.

Setting an Arabic Scale of your own

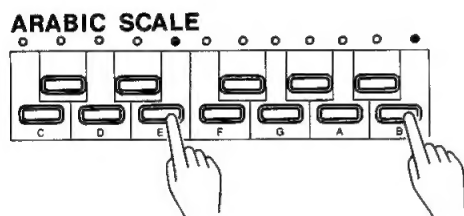
First press the relevant **QUARTER TONE** selector (14) which you wish to be lowered by a quarter tone from the normal setting.



(Example)



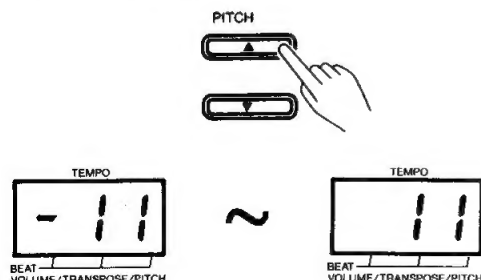
("  " represents a note 1/4 tone lower than "  ")

To set the above scale, press both E and B in the **QUARTER TONE** selector group. The relevant indication lamps by each selector will light and these notes will be lowered by a quarter tone.



Adjust the pitch of the note to your taste by using the Pitch  and  buttons (14) (the pitches of all selected notes are adjusted simultaneously).

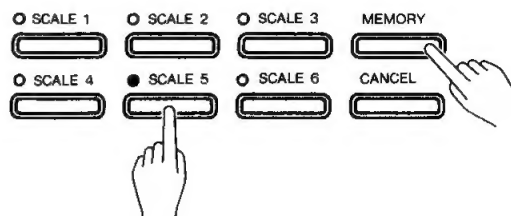
Pitch is adjusted in steps ranging from -11 to 11, shown on the **TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH** display (11) while the PITCH buttons are operated. A pitch value of "00" causes the selected notes to be lowered by exactly 50 cents (a quarter tone) *. Each pitch step corresponds to a change of approximately 3.4 cents.



* The "00" setting can be recalled at any time by pressing the Pitch  and  buttons simultaneously.



Memorizing your customized Arabic Scale

Store the programmed scale into any one of the **SCALE** buttons (SCALE 1 through SCALE 6) (14) by pressing the desired **SCALE** button while holding the **MEMORY** button.



Recalling an Arabic Scale

To recall and use an Arabic scale programmed as described above, simply press the **SCALE** button to which the desired scale was stored — the corresponding **SCALE** button indicator will light and the scale will be recalled. At the same time, the **PITCH** value for the recalled scale will be shown on the LED display for approximately 3 seconds. Press the **CANCEL** button to exit from the Arabic scale mode.

- * The contents of the Arabic scale memory is retained by an internal backup system for about 1 week even when the power is turned OFF.
- * If you select an Arabic scale for Auto Base Chord operation, the Arabic scale will apply only to the upper keyboard. In this case, the lower keyboard can also be made to comply with the Arabic scale by pressing the **PITCH**  button while holding the **CANCEL** button. The lower keyboard can later be returned to normal-scale operation by pressing the **PITCH**  button while holding the **CANCEL** button.
- * The Arabic scale mode is always OFF when the PSR-64 power is initially turned ON.

6. USING THE ACCOMPANIMENT SECTION

Rhythm Accompaniment Selecting an Accompaniment Style

20 accompaniment style selectors are used to select the PSR-64's 40 different accompaniment styles. Note that the indicator LED above each selector has two style names printed to the right of it. The ACCOMPANIMENT STYLE SELECT button (8) determines whether the upper or lower styles are selected. Each time the SELECT button is pressed, the upper and lower indicators to its right light alternately. When the upper indicator is lit, the upper styles can be selected and when the lower indicator is lit the lower styles can be selected.

To select an accompaniment style, first make sure that the appropriate SELECT indicator is lit — upper or lower — then press the selector corresponding to the desired style.

ACCOMPANIMENT STYLE

SELECT



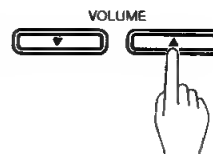
○ سعودي سعودي	○ بلدي أبوظبي	○ بقمود معمودي	○ فلامني عندي	○ سماعي ثقيل الوحدة الكبيرة
○ رقة 1 رقة 11	○ DISCO POP ROCK	○ SLOW ROCK ORIENTAL ROCK	○ FUNK SLOW BLUES	○ SWING BIG BAND
○ MODERN JAZZ SHUFFLE	○ 16BEAT BOSSA NOVA	○ SAMBA TANGO	○ REGGAE SALSA	○ RHUMBA MAMBO
○ CHA-CHA-CHA CONGA	○ BEGUINE MERENGUE	○ BOLERO COUNTRY	○ FLAMENCO POLKA	○ MARCH WALTZ

* When the power is initially turned ON, the SAI'DY (سعودي) style is automatically selected.

Adjusting the Accompaniment Volume

Although the MASTER VOLUME control (2) can be used to set the overall volume level, the ACCOMPANIMENT VOLUME ▲ and ▼ buttons (10) can also be used to adjust the volume of the selected accompaniment in relation to the performance voice. Press the ▲ button to increase the volume, or the ▼ button to decrease the volume. The selected volume level will be displayed on the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display (11) while the volume is being adjusted, and for approximately 3 seconds after either VOLUME button is released.

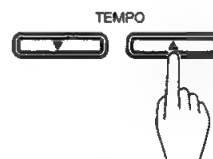
The volume range is from 0 to 9, with 1 being the lowest volume and 9 the highest. No accompaniment sound is produced if the volume value is set to 0. The highest volume value can be recalled at any time by pressing both the ACCOMPANIMENT VOLUME ▲ and ▼ buttons (10) at the same time (the volume is automatically set to 9 whenever the power switch is turned ON).



Setting the Tempo

Press the TEMPO ▲ button (9) to increase the tempo, or the TEMPO ▼ button (9) to decrease the tempo. The selected tempo will be displayed on the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display (11) (in quarter-note beats per minute) while the TEMPO ▲ or ▼ button is pressed, and for approximately 3 seconds after either TEMPO button is released.

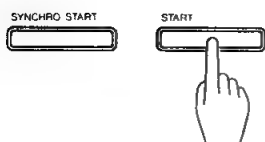
The available tempo range is from 40 to 280 beats per minute. Each accompaniment style has a different "normal" tempo which is automatically set whenever a new style is selected (but not when a new style is selected while the accompaniment is playing). The normal tempo for the currently selected accompaniment style can be recalled at any time by pressing both the TEMPO ▲ and ▼ buttons (9) at the same time (the tempo is automatically set to the normal value for the SAI'DY style whenever the power switch is turned ON).



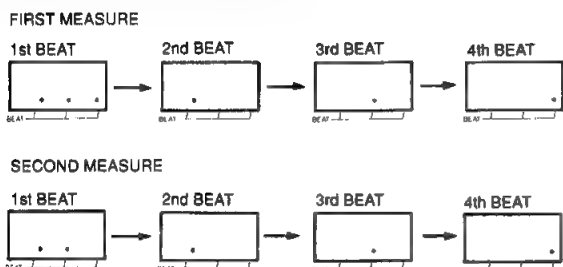
* It is also possible to adjust the tempo after starting playback of the accompaniment. This allows you to set the optimum tempo by ear.

Starting the Accompaniment

Press the START button (21) to start the selected accompaniment immediately, or press the SYNCHRO START button (20) if you want the accompaniment to start when you play the first note on the keyboard. If you press the SYNCHRO START button, the leftmost dot in the TEMPO/ BEAT/ VOLUME/ TRANSPOSE/ PITCH display (11) will flash at the selected tempo.



- * The three LED dots at the bottom of the BEAT/ TEMPO/ VOLUME display (11) provide a visual indication of the selected tempo as follows:

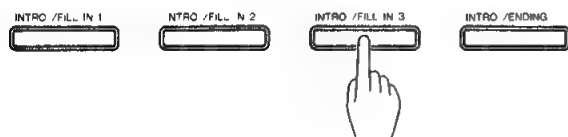


The above 8 beats (two 4/4 measures) repeat.

- * If the AUTO BASS CHORD selector (3) is set to OFF, the accompaniment will consist only of rhythm (drums & percussion) sounds. Operation of the AUTO BASS CHORD SINGLE FINGER and FINGERED modes is described on page 12 and 13.
- * A different accompaniment style can be selected at any time while the accompaniment is playing.

Starting the Accompaniment with an Introduction

Any of the PSR-64 accompaniment patterns can be started with a 1-measure introductory pattern by pressing either the INTRO./ FILL IN 1, INTRO./ FILL IN 2 or INTRO./ FILL IN 3 button (18). The INTRO./ ENDING button (19) produces a 2-measure introduction.



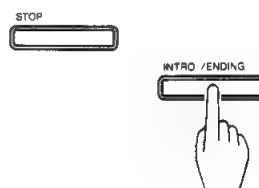
Adding Fill-ins

To add a fill-in (rhythm variation) at any time while the accompaniment is playing, press the INTRO./ FILL IN 1, INTRO./ FILL IN 2 or INTRO./ FILL IN 3 button (18). The fill-ins have a maximum length of one measure, but the actual length depends on precisely when in the current measure you press a FILL IN button (i.e. the fill-in lasts from the point at which the button is pressed until the end of the current measure). You can stop a fill-in pattern before the current measure by pressing the FILL IN button a second time. If you hold one of the FILL IN buttons, the fill-in pattern will repeat until the button is released.



Stopping the Accompaniment

An accompaniment in progress can be stopped immediately by pressing the STOP button (22), or it can be stopped with a two-measure ending by pressing the INTRO./ ENDING button (19). If the INTRO./ ENDING button is used, the ending will start from the current measure if the button is pressed during the first half of the measure, or from the beginning of the next measure if the button is pressed during the second half of the current measure.



Auto Bass Chord Accompaniment

The PSR-64 includes a sophisticated Auto Bass Chord accompaniment system that can provide automated bass and chordal backing in a number of ways.

- * The maximum number of notes that can be played simultaneously on the PSR-64 keyboard is reduced when the Auto Bass Chord feature is used.

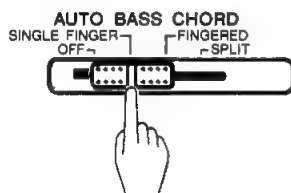
Single Finger Accompaniment

SINGLE FINGER accompaniment makes it simple to produce beautifully orchestrated accompaniment using major, seventh, minor and minor-seventh chords by pressing a minimum number of keys in the Auto Bass Chord Keys section of the keyboard. The bass and chord accompaniment produced is perfectly matched to the currently selected accompaniment style.

- * See "Alternative Split Point Selection" on page 8 for split point information.

1. Select the SINGLE FINGER Mode

Slide the AUTO BASS CHORD selector ③ to the SINGLE FINGER position.



2. Select an Accompaniment Style

Select the desired accompaniment style in the normal way. Although you can select the melody (upper keyboard) voice you intend to use, the PSR-64 automatically determines the voices to be used for the accompaniment bass and chords according to the accompaniment style you select.

3. Start the Accompaniment

Press the START button ②, SYNCHRO START button ④ or one of the INTRO. buttons ⑩ ⑪ to determine how the accompaniment will be started. If you press the START button, the rhythm will begin playing immediately without chordal accompaniment.

4. Press a Key in the Auto Bass Chord Keys Section

②④

Pressing any of the lowest keys on the keyboard will cause the automatic chord and bass accompaniment to begin. If you press a "C" key, for example, a C-major accompaniment will be played. Press another key in the Auto Bass Chord Keys section to select a new chord. The key you press will always determine the "root" of the chord played (i.e. "C" for a C chord).



Playing Minor, Seventh, and Minor-seventh Chords in the Single-finger Mode

- * For a minor chord, press the root key and any black key to its left.
- * For a seventh chord, press the root key and any white key to its left.
- * For a minor-seventh chord, press the root key and both any white and black keys to its left.



- * The automatic accompaniment will continue playing even if you lift your fingers from the Auto Bass Chord keys ②④. You only need to press the Auto Bass Chord keys when changing chords.

5. Stop the Auto Accompaniment

Press the STOP button ② or INTRO./ ENDING button ⑩ to stop the Accompaniment.

Setting the Accompaniment Volume

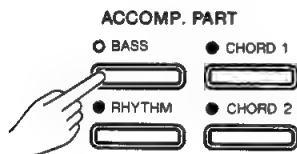
Set the volume of the Auto Accompaniment sound using the ACCOMPANIMENT VOLUME buttons (10), and the volume of the right-hand melody using the VOICE VOLUME buttons (5). The MASTER VOLUME control (2) can be used to set the overall volume level.

Setting the Tempo

Use the TEMPO controls (7) to set the desired accompaniment tempo (see "Setting the Tempo" on page 10 for details).

Selecting Playback of Specific Parts

The ACCOMP PART buttons (10) make it possible to play only specified parts of the automatic accompaniment. Normally, all parts are played back, so the LED indicators associated with the BASS, CHORD 1, CHORD 2 and RHYTHM buttons are all ON. If you press any of these buttons, turning its indicator OFF, that part will be muted and will not be heard until the button is pressed again (turning its indicator LED back ON). For example, if press the BASS button, the BASS LED will go out and the bass line will not be heard. This would, for example, allow you to practice creating your own bass lines on the upper keyboard.



* The FILL IN buttons (18) can be used in the Auto Bass Chord mode to create pattern variations in exactly the same way that they are used with rhythm accompaniment patterns (refer to the "Adding Fill-ins" section on page 11 for details).

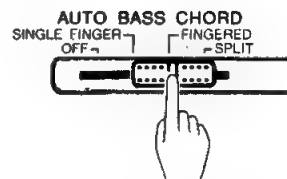
Fingered Accompaniment

The FINGERED mode is ideal if you already know how to play chords on a keyboard, since it allows you to supply your own chords for the Auto Bass Chord feature.

* See "Alternative Split Point Selection" on page 8 for split point information.

1. Select the FINGERED Mode

Slide the AUTO BASS CHORD selector (3) to the FINGERED position.



2. Select an Accompaniment Style

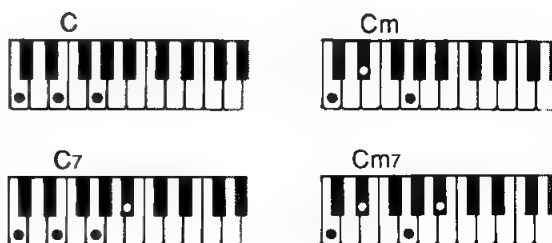
Select the desired accompaniment style in the normal way. Although you can select the melody (upper keyboard) voice you intend to use, the PSR-64 automatically determines the voices to be used for the accompaniment bass and chords according the accompaniment style you select.

3. Start the Accompaniment

Press the START button (21), SYNCHRO START button (20) or one of the INTRO. buttons (18) (19) to determine how the accompaniment will be started. If you press the START button, the rhythm will begin playing immediately without chordal accompaniment.

4. Play a Chord on the Auto Bass Chord Keys (24)

As soon as you play any chord in the Auto Bass Chord section of the keyboard, the PSR-64 will automatically begin to play the chord along with the selected rhythm and an appropriate bass line. The accompaniment will continue playing even if you release the Auto Bass Chord keys. When changing chords, be sure to release all keys before playing a new chord.



The PSR-64 will accept the following chord types, although the resultant accompaniment pattern will be either major, minor or seventh:

- Major
- Minor
- Major seventh
- Sixth
- Minor sixth
- Minor seventh
- Minor seventh flat five
- Seventh
- Seventh flat five
- Seventh suspended fourth
- Minor major seventh
- Augmented
- Diminished

Sixth, minor sixth and seventh flat five chords will only be properly detected if they are played in the "root position". For diminished and augmented chords, the lowest key pressed is assumed to be the root of the chord.

- * All other FINGERED mode operations are the same as in the SINGLE FINGER mode.

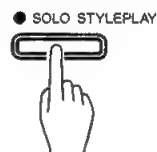
SOLO STYLEPLAY

This sophisticated feature automatically selects appropriate voices and adds harmony notes or effects – e.g. counter melody, glissando, delay, etc. – to a melody you play on the upper keyboard.

- * Only a single note can be played at a time on the PSR-64 upper keyboard section when the SOLO STYLEPLAY feature is used.

1. Turn SOLO STYLEPLAY ON

Press the SOLO STYLEPLAY button (25). The SOLO STYLEPLAY LED will light indicating that the SOLO STYLEPLAY feature is ON. The FINGERED mode will be selected if the AUTO BASS CHORD selector (3) is in the FINGERED position, but the SINGLE FINGER mode will be selected if it is in any other position.



2. Select the Desired Style

Select the desired accompaniment style using the normal style selection procedure.

3. Play

The SYNCHRO START mode is automatically selected when SOLO STYLEPLAY is turned ON, so all you have to do is play the required chords (SINGLE FINGER or FINGERED) on the lower keyboard while playing a single-note melody line on the upper keyboard.

4. Stop the Accompaniment

Stop the accompaniment using the STOP (26) or INTRO./ ENDING (23) button (and turn SOLO STYLEPLAY OFF, if necessary, by pressing the SOLO STYLEPLAY button (25) again so that its LED goes out).

7. PSR-64 PERCUSSION

Manual Percussion with the Percussion Pads

The PSR-64's six percussion pads **26** let you play percussion to accompany other instruments, or add original rhythm fills and breaks to your performances. The percussion pads can also be played while one of the PSR-64 accompaniments is playing.

Each percussion pad is capable of producing five different sounds, depending on whether the VAR. 1, VAR 2, VAR. 3, VAR. 4 or ARABIC variation button **27** is pressed. The sounds produced by each percussion pad when the different variation buttons are pressed are given in the chart below.

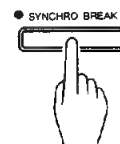
* The ARABIC percussion instruments are automatically selected when the POWER switch is initially turned ON.

Variation Button	Percussion Pad					
	VAR. 1	VAR. 2	VAR. 3	VAR. 4	VAR. 5	ARABIC
	Rimshot	Low Tom (acoustic)	Mid Tom (acoustic)	High Tom (acoustic)	Hi Hat (closed)	Hi Hat (open)
	Bass Drum	Low Tom (synth)	Mid Tom (synth)	High Tom (synth)	Snare Drum	Ride Cymbal
	Agogo (low)	Agogo (high)	Cuica (low)	Cuica (high)	Cabasa	Crash Cymbal
	Conga (low)	Conga (high)	Timbales (low)	Timbales (high)	Bongo (high)	Hand Clap
	Tabla 1	Tabla 2	Duff	Mazhar	Duhulia	Foukaishari

To use the percussion pads, simply select the desired percussion instrument group by pressing the appropriate variation button, then tap the pads (lightly) as if they were actual percussion instruments. The volume of the percussion pads is controlled by the ACCOMPANIMENT VOLUME buttons **10**.

The Synchro Break Function

This function allows you to create your own fill-ins using the percussion pads **26** while one of the PSR-64 accompaniment styles is playing. Use the SYNCHRO BREAK button **28** to turn this function ON or OFF. When the SYNCHRO BREAK LED is lit, playing on the percussion pads causes the accompaniment rhythm to stop playing so you can create your own fill-in. The accompaniment rhythm begins playing again when you stop playing the percussion pads *1.



*1 If a percussion note is not played within one 16th note after the end of a measure, the accompaniment rhythm will begin playing again from the beginning of the next measure.

The Custom Drummer

The PSR-64 Custom Drummer feature allows you to create an original rhythm pattern in addition to the 40 preset accompaniment styles. Your original rhythm pattern can be selected and played at any time, just like the presets.

Creating an Original Rhythm Pattern

1. Select a Suitable Rhythm

Begin by selecting one of the preset accompaniment styles that is close to the type of rhythm you want to create.

2. Engage the Program Mode

Press the CUSTOM DRUMMER PROGRAM button **23** so that its LED indicator lights.



3. Set the Appropriate Tempo and Volume

To make programming as easy as possible, set up an appropriate tempo and volume before you begin. It might be easier to program your rhythm pattern if you set a relatively slow tempo. The MASTER VOLUME control **2** and ACCOMPANIMENT VOLUME buttons **10** should be used to set a comfortable listening level.

4. Begin Programming

You can now add new parts to the selected rhythm accompaniment by playing the percussion pads **26** at the appropriate timing.

If you want to create a totally new rhythm, press the CUSTOM DRUMMER CLEAR button **23** before beginning to program. This cancels all the instruments in the original accompaniment, leaving only a closed hi-hat metronome sound (the metronome sound will not be heard when you play back your rhythm).

The rhythm pattern is two measures long, and the pattern will continue to repeat so you can add new instruments during each repeat, if necessary.



- * Up to 3 percussion instruments can be played simultaneously.

5. If You Want to Cancel a Single Instrument

It is possible to cancel a single instrument to eradicate a mistake or simply eliminate an unwanted instrument. First, make sure that the instrument to be cancelled is in the group selected by the variation buttons. Then, while holding the CANCEL key ⑩ (the highest key on the PSR-64 keyboard), press the percussion pad corresponding to the instrument you want to cancel. The selected instrument should now be cleared from the pattern.

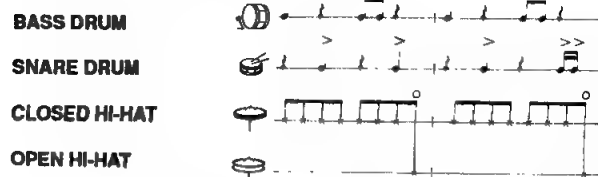
6. If You Want to Add Accented Beats

Specific beats of any instrument within your pattern can be accented by holding down the accent key ⑨ (the second from highest key on the PSR-64 keyboard – with the ">" mark above it) and pressing the percussion pad corresponding to the instrument you wish to accent at the appropriate time. To accent the snare drum on the third beat of the first measure, for example, hold the accent key and tap the snare drum key on the third beat of the first measure. Accents cannot be cancelled individually, so it is necessary to cancel the accented instrument and then enter the part again with the desired accents.

7. Stop Programming

Press the STOP button ⑫ when your rhythm pattern is complete and you want to stop programming.

- * Try writing the following rhythm pattern:



- * Only one custom rhythm pattern can be stored in memory at a time.
- * The custom rhythm pattern is retained in memory by a special backup system for approximately one week, even if the power is turned OFF.

Playing Back Your Custom Rhythm Pattern

Once created, your original rhythm pattern can be played back by pressing the CUSTOM DRUMMER PLAY button ⑬ and then the START button ⑪. Press the STOP button ⑫ to stop playback. Your CUSTOM DRUMMER rhythm can also be used as the basis for Auto Bass Chord FINGERED or SINGLE FINGER accompaniment.



8. THE MUSIC PROGRAMMER

The PSR-64 MUSIC PROGRAMMER allows you to "record" and play back anything you play on the keyboard — along with auto accompaniment if required. You can record the accompaniment and your own performance separately or at the same time. If, for example, you record the accompaniment first and then record your own performance while listening to playback of the accompaniment, you're free to use the entire keyboard for your performance rather than being limited to only the upper keyboard area.

The MUSIC PROGRAMMER independently records the following "parameters" for the upper and lower keyboard sections in addition to notes and accompaniments played. Any changes you make to any of these parameters are recorded, and will be reproduced exactly as they occurred when the recording is played back:

Upper Keyboard:

Voice, Sustain on/off, Voice volume, Pitch, Transpose, Arabic scale.

Lower Keyboard:

Accompaniment style, Tempo, Intro, Fill-in, Ending, Stop, Accompaniment volume, Accompaniment part, Custom on/off.

- * See "Alternative Split Point Selection" on page 8 for split point information.
- * The maximum recording capacity of the MUSIC PROGRAMMER is as follows: 198 measures maximum on the lower keyboard (approximately 66 measures if one chord is recorded per measure), and 120 notes maximum (approximately 100 notes if a note is played in each quarter-note beat) on the upper keyboard. Any other setting changes made while recording, however, will have a large effect on the total capacity.
- * Music programmer data is retained in memory by a special backup system for approximately one week, even if the power is turned OFF.

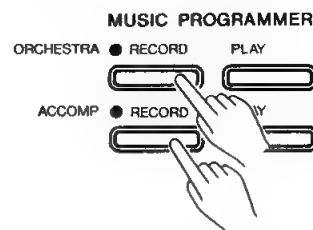
Recording

Recording Accompaniment and Performance Simultaneously

1. **Select the Desired Accompaniment Style**
Pick out an accompaniment style that is appropriate for the type of music you want to record.
2. **Select the SINGLE FINGER or FINGERED Auto Bass Chord Mode**
Use the AUTO BASS CHORD selector (3) to select either the SINGLE FINGER or FINGERED mode (if the AUTO BASS CHORD selector is set to any position other than FINGERED, the SINGLE FINGER mode will automatically be selected when recording is begun).

3. Set Up All Necessary Parameters

Before actually beginning to record, you should make sure that you select the desired voice, engage any required effects, adjust the accompaniment and voice volume levels for the appropriate balance, and adjust the tempo to match the piece you are about to record.



4. Set the Record Ready Mode

Press both the ORCHESTRA and ACCOMPANIMENT RECORD buttons (3), causing both of their LED indicators to light. This engages the "record ready" mode: the metronome will sound at the currently selected tempo, and recording will begin as soon as you play a note on the keyboard (SYNCHRO START type operation).

5. Choose an Alternative Start Mode If Necessary

If you do not perform this step, recording will begin as soon as you play a note or chord on the keyboard. At this point, however, you can choose to start recording immediately by pressing the START button (2), or start recording immediately with an introduction by pressing one of the INTRO. buttons (18)(19).

6. Start Recording

If you haven't already started recording as in step 5, above, recording will begin automatically as soon as you begin playing. While playing, you can change accompaniment styles, voices, tempo and other parameters. Such changes will be recorded and reproduced when the recording is played back.

7. Stop Recording

Press either the STOP button (22) or INTRO./ ENDING button (19) to stop recording. Recording actually ends the instant the accompaniment stops playing. It is also possible to stop recording immediately by pressing either of the RECORD or PLAY buttons (3). Recording will stop automatically if you exceed the PSR-64's memory capacity (this will depend on the complexity of your performance and whether you use accompaniment or not).

- * Whenever you record using the MUSIC PROGRAMMER, any previously recorded material will be erased.
- * If you make a mistake while recording, simply press the SYNCHRO START button (20) and begin again from step 5, above.

Recording the Accompaniment and Performance Separately

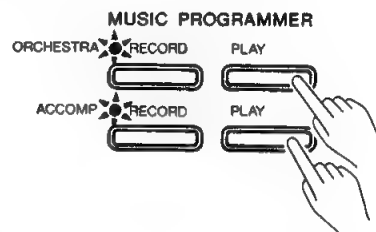
The accompaniment and performance can be recorded separately if you like, allowing you to concentrate fully on each part as it is recorded.

To do this, first press only the ACCOMP. RECORD button ③① instead of both RECORD buttons and record the accompaniment part. Then press the ACCOMP. PLAY button ③① so that the ACCOMP. indicator flashes, press the ORCHESTRA RECORD button ③① and record the performance part while listening to accompaniment part you recorded first. Except for operation of the RECORD and PLAY buttons, the record procedure is exactly the same as described above.

Playback

1. Engage the Start Ready Mode

Press both the ORCHESTRA and ACCOMPANIMENT PLAY buttons ③① (causing their indicators to flash) if you want to play back both the ORCHESTRA and ACCOMPANIMENT parts, or press just one of the PLAY buttons if you only want to hear one of the parts (for example, you could play back only the accompaniment part and play along manually on the keyboard).



2. Start Playback

Press the START button ②① or a key on the keyboard to begin playback. Your recording will begin with an introduction if you start playback by pressing one of the INTRO. buttons ①⑧①⑨.

3. Adjust Volume, Tempo, etc.

If necessary, adjust the overall volume using the MASTER VOLUME control ②, and the balance between the accompaniment and voice volumes using their respective volume buttons. You can also adjust the tempo and even change accompaniment styles during playback.

4. Play Along if You Like

Play along on the PSR-64 keyboard if you like.

5. Stop Playback

Playback will stop automatically when the end of the recorded piece is reached. You can also stop playback at any time by pressing the STOP ②② or INTRO./ENDING ①⑨ button.

* When playback is stopped, the MUSIC PROGRAMMER re-enters the playback ready mode. This can be exited by pressing the PLAY buttons so that neither the ORCHESTRA or ACCOMPANIMENT LED ③① is flashing.

9. MIDI FUNCTIONS

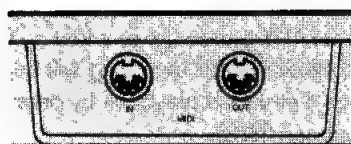
A Brief Introduction to MIDI

MIDI, the Musical Instrument Digital Interface, is a world-standard communication interface that allows MIDI-compatible musical instruments and equipment to share musical information and control one another. This makes it possible to create "systems" of MIDI instruments and equipment that offer far greater versatility and control than is available with isolated instruments.

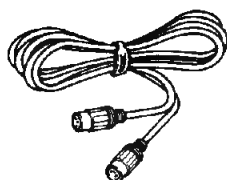
The PSR-64 MIDI Connectors

The PSR-64 MIDI IN connector receives MIDI data from an external MIDI device which can be used to control the PSR-64.

The MIDI OUT connector transmits MIDI data generated by the PSR-64 (e.g. note and velocity data produced by playing the keyboard).

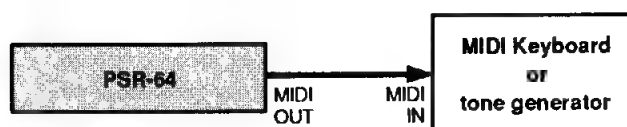


* To connect the PSR-64 MIDI connectors to other MIDI devices, always use high-quality MIDI cables such as the Yamaha MIDI-15 (15-meter type) or MIDI-03 (3-meter type).

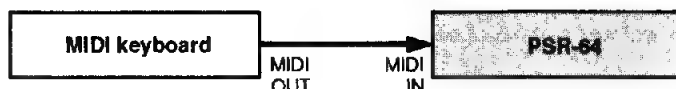


Simple MIDI Control

Most MIDI keyboards (including the PSR-64, of course) transmit note and velocity (touch response) information via the MIDI OUT connector whenever a note is played on the keyboard. If the MIDI OUT connector is connected to the MIDI IN connector of a second keyboard (synthesizer, etc.) or a tone generator (essentially a synthesizer with no keyboard), the second keyboard or tone generator will respond precisely to notes played on the original transmitting keyboard. The result is that you can effectively play two instruments at once, providing thick multi-instrument sounds. The PSR-64 also transmits "program change" data when one of its voices is selected. Depending on how the receiving device is set up, the corresponding voice will be automatically selected on the receiving keyboard or tone generator whenever a voice is selected on the PSR-64.

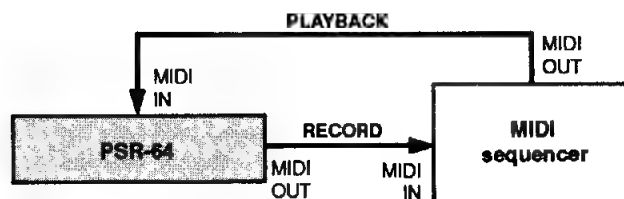


The PSR-64 is capable of receiving the same MIDI data, so a second MIDI keyboard connected to the PSR-64 MIDI IN connector can be used to remotely play the PSR-64 and select voices as required.



MIDI Sequence Recording

The same type of musical information transfer described above is used for MIDI sequence recording. A MIDI sequence recorder can be used to "record" MIDI data received from a PSR-64, for example. When the recorded data is played back, the PSR-64 automatically "plays" the recorded performance in precise detail.







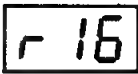
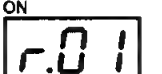
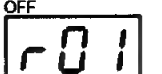




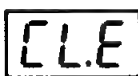
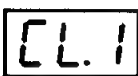
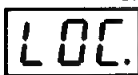

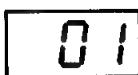
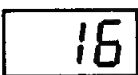


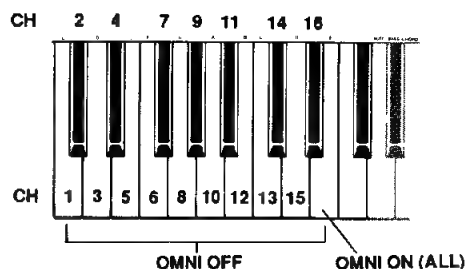
Note:

Always use a high-quality MIDI cable to connect MIDI OUT to MIDI IN terminals. Never use MIDI cables longer than about 15 meters, since cables longer than this can pick up noise which can cause data errors.

PSR-64 MIDI Settings & Functions

MIDI Operations Summary

Function	Step 1 (While holding the MIDI button)	Step 2 (While holding the MIDI button)	Display/Control Range
1. Remote control/standard voice mode selection.	Press KANOUN/ OUD (كانون / عود) button.	_____	REMOTE CONTROL MODE STANDARD VOICE MODE  , 
2. MIDI transmit channel selection.	Press NAI/ KAWALA (ناي / كواله) button.	Press the appropriate AUTO BASS CHORD key (refer to the illustration below).	CHANNEL 1 CHANNEL 16  ~ 
3. MIDI receive channel selection.	Press MIZMAR/ MUWIZ (ميزمار / ميوز) button.	Press the appropriate AUTO BASS CHORD key (refer to the illustration below).	OMNI ON + CHANNEL 1 OMNI OFF - CHANNEL 1 OMNI OFF + CHANNEL 16  ,  ~  If the standard voice mode is selected ... STEP 3: Turn reception on by pressing the BOWED BASS/ ELEC. BASS button, or off by pressing the REED SYNTH/ ORCHESTRA HIT button while holding the MIDI button.  ,  STEP 4: Repeat steps 2 and 3 to set other channels.
4. Split transmit mode ON/OFF selection (only available in the REMOTE CONTROL mode).	Press KAMAN/ ACCORDION (أكورديون / كمان) button.	Press BOWED BASS/ ELEC. BASS for ON, or REED SYNTH/ ORCHESTRA HIT for OFF.	ON OFF  , 
5. Program change and control change cancel ON/OFF selection.	Press ARABIC STRINGS/ ARABIC ORGAN (وترباب / أورغ) button.	Press BOWED BASS/ ELEC. BASS for ON, or REED SYNTH/ ORCHESTRA HIT for OFF.	ON OFF  , 
6. External/internal clock selection.	Press PIANO/ ELEC. PIANO button.	Press BOWED BASS/ ELEC. BASS for EXTERNAL, or REED SYNTH/ ORCHESTRA HIT for INTERNAL.	EXTERNAL CLOCK INTERNAL CLOCK  , 
7. Local control ON/OFF selection.	Press HARPSICHORD/ MARIMBA button.	Press BOWED BASS/ ELEC. BASS for ON, or REED SYNTH/ ORCHESTRA HIT for OFF.	ON OFF  , 
8. Rhythm receive channel selection (only available in the standard voice mode).	Press STRINGS/ PIZZ. STRINGS button.	Press the appropriate AUTO BASS CHORD key (refer to the illustration below).	CHANNEL 1 CHANNEL 16  , 



1. Remote Control/Standard Voice Mode Selection

The Remote Control mode should be used when the PSR-64 is to be connected to a second keyboard or tone generator which it is to control. In this mode, the PSR-64 can only receive on a single MIDI channel. The Standard Voice mode should be used when the PSR-64 is to be used as a tone generator, for example, receiving data from a second MIDI device (such as a sequencer). In this mode the PSR-64 can receive on multiple MIDI channels, each channel corresponding to a different voice.

- * Refer to "MIDI Channel Selection" below for more information on MIDI channels.
- * This setting has no effect when the PSR-64 is used for transmission only.
- * The number of notes that can be played simultaneously via external control when the Standard Voice mode is selected: 8 melody, 7 rhythm.

2.3. MIDI Channel Selection

The MIDI transmit and receive channels can be set independently.

- * The transmit channel is automatically set to channel 1 and the receive channel is automatically set to OMNI OFF + channel 1 when the power is initially turned ON.
- * OMNI ON means that reception can occur simultaneously on all available channels (1 through 16). When OMNI OFF is selected, reception only occurs on the specified channel.

4. Split Transmit Mode ON/OFF Selection

If the SPLIT Transmit Mode is turned ON, lower and upper keyboard notes played in the Single Finger, Fingered or Split modes are transmitted on different MIDI channels, and can thus be used to control different MIDI devices.

- * Lower-keyboard note data is transmitted on MIDI channel 2, so be sure to set the MIDI device which is to receive the lower-keyboard data to receive on channel 2. The upper-keyboard note data is transmitted on the MIDI channel selected using the MIDI Channel Selection function, described above.
- * Upper and lower keyboard data can be recorded to a MIDI sequencer on different channels, so that different voices set to the corresponding channels can be independently controlled when the recorded sequence is played back.
- * This function has no effect when the PSR-64 is used for reception only.
- * This function cannot be used when the Standard Voice mode is selected.
- * When the power is initially turned ON, the Split Transmission Mode is automatically turned OFF.

5. Program Change & Control Change Cancel ON/OFF Selection

Normally the PSR-64 will respond to MIDI program change and control change data received from an external keyboard or other MIDI device, causing the correspondingly numbered PSR-64 voice to be selected and the corresponding "control" operations to be performed. The PSR-64 will normally also send MIDI program change data whenever one of its voices is selected or control change data when one of its controls are operated, causing the corresponding operation to be performed on an external MIDI device.

This function makes it possible to cancel program change and control change data reception and transmission so that voices can be selected on the PSR-64 without affecting the external MIDI device, etc. Program Change & Control Change Cancel is automatically turned OFF when the power is initially turned ON.

6. External/Internal Clock Selection

This function determines whether the PSR-64 rhythm and accompaniment timing is controlled by the PSR-64's own internal clock or an external MIDI clock signal received from external equipment connected to the MIDI IN connector. The Clock Mode is automatically set to INTERNAL when the power is initially turned ON.

- * To synchronize playback of an external sequencer or rhythm programmer to the PSR-64, for example, set this function to INTERNAL and make sure that the external device is set up to receive EXTERNAL clock data.
- * To synchronize the PSR-64 to playback of an external sequencer or rhythm programmer, set this function to EXTERNAL.

NOTE:

If the clock mode is set to EXTERNAL and a MIDI clock signal is not being received from an external source, the PSR-64 rhythm, accompaniment and other clock-dependent features will not operate.

7. Local Control ON/OFF Selection

"Local Control" refers to the fact that, normally, the PSR-64 keyboard controls its internal tone generator, allowing the internal voices to be played directly from the keyboard.

This situation is "Local Control ON" since the internal tone generator is controlled locally by its own keyboard. Local control can be turned OFF, however, so that the PSR-64 keyboard does not play the internal voices, but the appropriate MIDI information is still transmitted via the MIDI OUT connector when notes are played on the keyboard. At the same time, the internal tone generator responds to MIDI information received via the MIDI IN connector. This means that while an external MIDI sequence recorder, for example, plays the PSR-64's internal voices, an external tone generator can be played from the PSR-64 keyboard. Local Control is automatically turned ON when the power is initially turned ON.

* This function has no effect when the PSR-64 is being used for reception only

8. Rhythm Receive Channel Selection

This function is used to select the MIDI receive channel that will be used to receive rhythm data (the channel selected using the MIDI Channel Selection function described earlier applies to non-rhythm parts and voices). The Rhythm Receive Channel must be matched to the transmit channel of the device from which the rhythm data is to be received.

* If the assigned Rhythm Receive Channel is the same as a channel assigned for reception of non-rhythm data, the rhythm data takes priority.

* When the power switch is turned ON, the Remote Control Mode is selected and the OMNI OFF + receive channel 1 mode is selected. If the Standard Voice Mode is then selected, this function is automatically set to channel 16.

* This function has no effect if the Remote Control Mode is selected.

MIDI Error Display

During MIDI reception, if the data cannot be properly transferred or the amount of data transferred exceeds the capacity of the transmit/receive buffer, the following MIDI error display will appear.

If this occurs, try turning the power switch OFF and then ON again. If the problem is caused by a buffer overflow, the data rate or amount of data sent should be reduced until the problem disappears.

Err

10. OPTIONAL ACCESSORIES

• AC Power Adaptor (PA-4/PA-40)

Transforms AC voltage to DC voltage.

• Headphones (HPE-3/HPE-5)

These specially designed lightweight headphones feature extra-comfortable ear pads.

• Expression Pedal (EP-1)

Plugs into the PSR-64 EXP. PEDAL jack for convenient foot-operated expression control.

• Stand (L-2/L-4)

This lightweight, portable stand provides a sturdy, convenient support for your PSR-64.

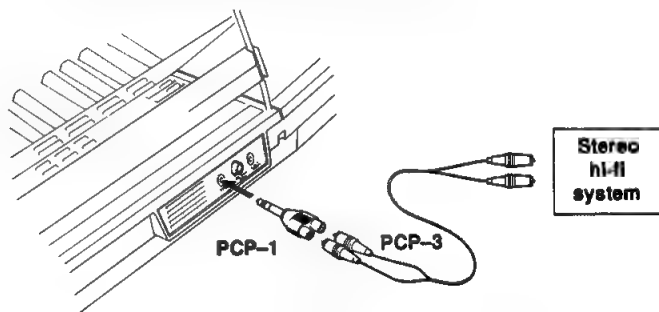
• Bench (BC-6)

• Stereo Connection Cord (PSC-3)

Use this cord to connect your PSR-64 to a stereo hi-fi system.

• Stereo Conversion Plug (PCP-1)

Converts stereo pin jacks to a stereo phone plug.



* Some optional accessories may not be available in all areas.

11. SPECIFICATIONS

Keyboard

61 keys (C1-C6)

Orchestra Voices (40 voices)

Kanoun, Oud, Nai, Kawaia, Mizmar, Mijwiz, Kaman, Accordion, Arabic Strings, Arabic Organ, Piano, Elec. Piano, Harpsichord, Marimba, Strings, Pizz. Strings, Synth Strings, Cello, Flute, Pan Flute, Recorder, Clarinet, Oboe, Saxophone, Harmonica, Bagpipe, Trumpet, Horn, Brass Ensemble, Pipe Organ, Jazz Organ, Reed Organ, Human Vox, Whistle, Guitar, Acoustic Bass, Bowed Bass, Elec. Bass, Reed Synth, Orchestra Hit

Controls: Select, Lower, Volume (▲, ▼)

Polyphony: 8 notes max.

Effects

Sustain (1, 2), Pitch Bend Wheel

Accompaniment Styles (40 styles)

Sa'dy, Malfouf, Baladi, Ayyoub, Maksoum, Masmoudy, Fallahy, Adani, Samai'y Thakeil, Wahdah Kabira, Zaffa 1, Zaffa 2, Disco, Pop Rock, Slow Rock, Oriental Rock, Funk, Slow Blues, Swing, Big Band, Modern Jazz, Shuffle, 16 Beat, Bossa Nova, Samba, Tango, Reggae, Salsa, Rhumba, Mambo, Cha-Cha-Cha, Conga, Beguine, Merengue, Bolero, Country, Flamenco, Polka, March, Waltz

Controls: Select, Tempo (▲, ▼), Volume (▲, ▼), Synchro Start, Start, Stop, Intro/Fill In (1-3), Intro/Ending, Accompaniment Part (Bass, Chord 1, Chord 2, Rhythm)

Custom Drummer

Controls: Program, Play, Clear

Percussion (30 percussion)

Tabla 1, Tabla 2, Duff, Mazhar, Duhulla, Foukaishat, Rim Shot, Tom (Low, Mid, High), Hi Hat (Closed, Open), Bass Drum, Synth Tom (1, 2, 3), Snare Drum, Ride Cymbal, Agogo (Low, High), Cuica (Low, High), Cabasa, Crash Cymbal, Conga (Low, High), Timbales (Low, High), Bongo, Hand Clap

Controls: Percussion Pads, Percussion Variation (Var. 1-4, Arabic), Synchro Break, Percussion Accent Key (>), Percussion Cancel Key

Auto Bass Chord

Controls: Off, Single Finger, Fingered, Split

Music Programmer

Controls: Orchestra Record, Orchestra Play, Accompaniment Record, Accompaniment Play

Arabic Scale

Controls: Quarter Tone Selectors, Scale (1-6), Memory, Pitch (▲, ▼), Cancel

Displays

Tempo/ Beat/ Volume/ Transpose/ Pitch Display

Other Controls

Power Switch, Master Volume, Solo Styleplay Button, Transpose Buttons(▲, ▼), Pitch Buttons(▲, ▼), MIDI Button, Demonstration Button

Auxiliary Jacks

MIDI (OUT, IN), EXP. PEDAL, HEADPHONES/AUX. OUT, DC IN (9-12V)

Main Amplifier

2.5W x 2 (RMS)

Speaker

12cm (4-3/4") x 2

Rated Voltage

DC 9V (Six SUM-1, "D" size, R-20 or equivalent batteries), AC Power Adaptor (PA-4)

Dimensions (W x D x H)

953mm x 365mm x 123mm (37-1/2" x 14-1/3" x 3-7/10")

Weight

6 kg (13 lbs) excluding batteries

* Specifications are subject to change without notice.

Function		Transmitted	Recognized	Remarks
Basic Channel	Default Changed	1 1-16	1 1-16	
Mode	Default Messages Altered	3 X *****	3 OMNI on, OMNI off X	remote control mode
Note Number	: True voice	36-96 *****	36-96 *1 36-96 *2	
Velocity	Note on Note off	X 9nH, v=64 *3 X 9nH, v=0	O *4 X	
After Touch	Key's Ch's	X X	X X	
Pitch Bender		O	O 0-2 semi	7bit resolution
Control Change	7	O	O	Volume
	64	O	O	Sustain
Program Change	: True #	O 0-39 *****	O 0-39 *5 0-39	
System Exclusive		X	O	
System	: Song Pos	X	X	
	: Song Sel	X	X	
Common	: Tune	X	X	
System	: Clock	O	O	only remote control mode
Real Time	: Commands	O	O	
Aux	: Local ON/OFF	X	O	
	: All Notes OFF	X	O (122-125)	
Mes-	: Active Sense	O	O	
sages	: Reset	X	X	
Notes : *1 1-127 if standard voice mode is on *2 24-102 if standard voice mode is on *3 v=127 if standard voice mode is on *4 only standard voice mode *5 0-108 if standard voice mode is on				

Mode 1 : OMNI ON, POLY
Mode 3 : OMNI OFF, POLY

Mode 2 : OMNI ON, MONO
Mode 4 : OMNI OFF, MONO

O : Yes
X : No

● STANDARD VOICE MODE OUTPUT VOICE NUMBER CHART

PSR-64		MIDI OUT	
NO.	PANEL VOICES	NO.	STANDARD VOICES
00	KANOUN	76	KOTO
01	UD	73	CLASSIC GUITAR
02	NAI	47	PAN FLUTE
03	KAWALA	20	FLUTE
04	MIZMAR	21	OBOE
05	MJWIZ	19	CLARINET
06	KAMAN	10	VIOLIN 1
07	ACCORDION	31	ACCORDION
08	ARABIC STRINGS	50	STRINGS 2
09	ARABIC ORGAN	02	PIPE ORGAN 1
10	PIANO	03	PIANO 1
11	ELEC. PIANO	05	ELECTRIC PIANO 1
12	HARPSICHORD	04	HARPSICHORD 1
13	MARIMBA	08	MARIMBA
14	STRINGS	41	STRINGS 1
15	PIZZ. STRINGS	78	PIZZICATO STRINGS
16	SYNTH STRINGS	51	SYNTH STRINGS
17	CELLO	11	CELLO
18	FLUTE	20	FLUTE
19	PAN FLUTE	47	PAN FLUTE
20	RECORDER	88	RECORDER
21	CLARINET	19	CLARINET
22	OBOE	21	OBOE
23	SAXOPHONE	18	SAX
24	HARMONICA	22	HARMONICA
25	BAGPIPE	43	BAGPIPE
26	TRUMPET	15	TRUMPET
27	HORN	17	HORN
28	BRASS ENSEMBLE	92	BRASS ENSEMBLE 1
29	PIPE ORGAN	29	PIPE ORGAN 2
30	JAZZ ORGAN	01	JAZZ ORGAN
31	REED ORGAN	49	REED ORGAN
32	HUMAN VOX	96	HUMAN CHORUS
33	WHISTLE	23	WHISTLE
34	GUITAR	73	CLASSIC GUITAR
35	ACOUSTIC BASS	14	WOOD BASS 1
36	BOWED BASS	35	BOWED BASS
37	ELEC. BASS	38	ELECTRIC BASS 1
38	REED SYNTH	85	SYNTH REED 2
39	ORCHESTRA HIT	90	ORCHESTRA HIT

* Voice numbers not enclosed in boxes are common panel and standard voices.

● STANDARD VOICE MODE INPUT VOICE NUMBER CHART

MIDI IN		PSR-64	
NO.	STANDARD VOICES	NO.	PANEL VOICES
00	SYNTH BRASS 1	26	TRUMPET
01	JAZZ ORGAN	30	JAZZ ORGAN
02	PIPE ORGAN 1	09	ARABIC ORGAN
03	PIANO 1	10	PIANO
04	HARPSICORD 1	12	HARPSICORD
05	ELECTRIC PIANO 1	11	ELEC. PIANO
06	CELESTA	13	MARIMBA
07	VIBRAPHONE	13	MARIMBA
08	MARIMBA	13	MARIMBA
09	STEEL DRUM	13	MARIMBA
10	VIOLIN 1	06	KAMAN
11	CELLO	17	CELLO
12	JAZZ GUITAR	34	GUITAR
13	R. GUITAR 1 (DIST.)	34	GUITAR
14	WOOD BASS 1	35	ACOUSTIC BASS
15	TRUMPET	26	TRUMPET
16	TROMBONE	27	HORN
17	HORN	27	HORN
18	SAX	23	SAXOPHONE
19	CLARINET	21	CLARINET
20	FLUTE	18	FLUTE
21	OBOE	22	OBOE
22	HARMONICA	24	HARMONICA
23	WHISTLE	33	WHISTLE
24	MUSIC BOX	13	MARIMBA
25	HONKY-TONK PIANO	10	PIANO
26	TOY PIANO	10	PIANO
27	ROCK ORGAN	30	JAZZ ORGAN
28	TREMOLO ORGAN	30	JAZZ ORGAN
29	PIPE ORGAN 2	29	PIPE ORGAN
30	FUNKY CLAVI	12	HARPSICORD
31	ACCORDION	07	ACCORDION
32	GLOCKENSPIEL	10	PIANO
33	HAWAIIAN GUITAR	34	GUITAR
34	BANJO	00	KANOUN
35	BOWED BASS	36	BOWED BASS
36	FOLK GUITAR	34	GUITAR
37	HARP	11	ELEC. PIANO
38	ELECTRIC BASS 1	37	ELEC. BASS
39	SLAP BASS	37	ELEC. BASS
40	UKULELE	34	GUITAR
41	STRINGS 1	14	STRINGS
42	ALPENHORN	27	HORN
43	BAGPIPE	25	BAGPIPE
44	MUTE TRUMPET	26	TRUMPET
45	SYNTH REED 1	38	REED SYNTH
46	JUG	13	MARIMBA
47	PAN FLUTE	19	PAN FLUTE
48	ICE BLOCK	13	MARIMBA
49	REED ORGAN	31	REED ORGAN
50	STRINGS 2	08	ARABIC STRINGS
51	SYNTH STRINGS	16	SYNTH STRINGS
52	PIANO 2	10	PIANO
53	HARPSICORD 2	12	HARPSICORD
54	ELECTRIC PIANO 2	11	ELEC. PIANO
55	GLASS CELESTA	13	MARIMBA
56	BANDONEON	07	ACCORDION
57	STREET ORGAN	19	PAN FLUTE
58	SYNTH BASS 1	27	HORN
59	XYLOPHONE	13	MARIMBA
60	SYNTH (PERCUSSIVE)	12	HARPSICORD
61	KALIMBA	13	MARIMBA
62	TUBULA BELLS	11	ELEC. PIANO
63	HAND BELL	11	ELEC. PIANO

MIDI IN		PSR-64	
NO.	STANDARD VOICES	NO.	PANEL VOICES
64	CARILLON	11	ELEC. PIANO
65	PIZZICATO VIOLIN	15	PIZZ. STRINGS
66	TIMPANI	13	MARIMBA
67	VIOLIN 2	06	KAMAN
68	R. GUITAR 2 (NORMAL)	34	GUITAR
69	R. GUITAR 3 (TREMOLO)	34	GUITAR
70	R. GUITAR 4 (MUTE)	34	GUITAR
71	PEDAL STEEL GUITAR	34	GUITAR
72	12 STRINGS GUITAR	34	GUITAR
73	CLASSIC GUITAR	34	GUITAR
74	MANDOLIN	34	GUITAR
75	SITAR	34	GUITAR
76	KOTO	00	KANOUN
77	SHAMISEN	00	KANOUN
78	PIZZICATO STRINGS	15	PIZZ. STRINGS
79	ELECTRIC BASS 2	37	ELEC. BASS
80	ELECTRIC BASS 3	37	ELEC. BASS
81	WOOD BASS 2	35	ACOUSTIC BASS
82	SYNTH BASS 2	37	ELEC. BASS
83	WOW TRUMPET	26	TRUMPET
84	TUBA	27	HORN
85	SYNTH REED 2	38	REED SYNTH
86	SYNTH BASS 2	37	ELEC. BASS
87	FLUGELHORN	27	HORN
88	RECORDER	20	RECORDER
89	OCARINA	33	WHISTLE
90	ORCHESTRA HIT	39	ORCHESTRA HIT
91	SAMBA WHISTLE	33	WHISTLE
92	BRASS ENSEMBLE 1	28	BRASS ENSEMBLE
93	WOODWIND ENSEMBLE	21	CLARINET
94	HUMAN VOICE 1	32	HUMAN VOX
95	HUMAN VOICE 2	32	HUMAN VOX
96	HUMAN CHORUS	32	HUMAN VOX
97	KAZOO	22	OBOE
98	MUSIC SAW	18	FLUTE
99	SIN WAVE	18	FLUTE
100	—	00	KANOUN
101	—	01	ODU
102	—	02	NAI
103	—	03	KAWALA
104	—	04	MIZMAR
105	—	05	MJWIZ
106	—	06	KAMAN
107	—	08	ARABIC STRINGS
108	—	09	ARABIC ORGAN
109	—	XX	NO CHANGE
110	—	XX	NO CHANGE
111	—	XX	NO CHANGE
112	—	XX	NO CHANGE
113	—	XX	NO CHANGE
114	—	XX	NO CHANGE
115	—	XX	NO CHANGE
116	—	XX	NO CHANGE
117	—	XX	NO CHANGE
118	—	XX	NO CHANGE
119	—	XX	NO CHANGE
120	—	XX	NO CHANGE
121	—	XX	NO CHANGE
122	—	XX	NO CHANGE
123	—	XX	NO CHANGE
124	—	XX	NO CHANGE
125	—	XX	NO CHANGE
126	—	XX	NO CHANGE
127	—	XX	NO CHANGE

* Voice numbers not enclosed in boxes are common panel and standard voices.

● STANDARD VOICE MODE RHYTHM INSTRUMENT CHART

MIDI IN			PSR-64
NO.	KEY	STANDARD RHYTHM VOICES	RHYTHM VOICES
37	C#1	TRIANGLE MUTE	AGOGO LOW
38	D1	SYNTH SNARE	SNARE
39	D#1	TRIANGLE OPEN	AGOGO HI
40	E1	SYNTH TOM BASS	SYNTH TOM LOW
41	F1	SYNTH TOM LOW	SYNTH TOM LOW
42	F#1	SYNTH TOM MID	SYNTH TOM MID
43	G1	SYNTH TOM HI	SYNTH TOM HI
44	G#1	BASS DRUM 2	BASS DRUM
45	A1	BASS DRUM 1	BASS DRUM
46	A#1	RIM SHOT 2	RIM SHOT
47	B1	BASS TOM	LOW TOM
48	C2	LOW TOM	LOW TOM
49	C#2	SNARE HI	SNARE
50	D2	MID TOM	MID TOM
51	D#2	RIM SHOT	RIM SHOT
52	E2	SNARE LO	SNARE
53	F2	HI TOM	HI TOM
54	F#2	HAND CLAP	HAND CLAP
55	G2	COWBELL	BONGO HI
56	G#2	SHAKER (CABASA)	CABASA
57	A2	HI-HAT CLOSE	HI-HAT CLOSE
58	A#2	BRUSH HIT	HI-HAT CLOSE
59	B2	HI-HAT OPEN	HI-HAT OPEN
60	C3	CRASH CYMBAL	CRASH CYMBAL
61	C#3	SPLASH CYMBAL	RIDE CYMBAL
62	D3	RIDE CYMBAL CUP	RIDE CYMBAL
63	D#3	RIDE CYMBAL	RIDE CYMBAL
64	E3	CONGA LOW	CONGA LOW
65	F3	CONGA HI OPEN	CONGA HI
66	F#3	CONGA HI MUTE	CONGA HI
67	G3	BONGO LOW	BONGO HI
68	G#3	BONGO HI	BONGO HI
69	A3	TIMBALE LOW	TIMBALE LOW
70	A#3	TIMBALE HI	TIMBALE HI
71	B3	TAMBOURINE	HI-HAT CLOSE
72	C4	CASTANET	RIM SHOT
73	C#4	CLAVES	BONGO HI
74	D4	AGOGO LOW	AGOGO LOW
75	D#4	AGOGO HI	AGOGO HI
76	E4	CUICA LOW	CUICA LOW
77	F4	CUICA HI	CUICA HI
78	F#4	WHISTLE	BONGO HI
79	G4	BRUSH	CABASA
80	G#4		TABLA LOW
81	A4		TABLA HIGH
82	A#4		DUHULLA
83	B4		MAZHR
84	C5		DUFF
85	C#5		FOUKAISHAT

The serial number of this product may be found on the bottom of the unit. You should note this serial number in the space provided below and retain this manual as a permanent record of your purchase to aid identification in the event of theft.

Model No. PSR-64
Serial No.

Concerning the Warranty

This product was made for international distribution, and since the warranty for this type of product varies from marketing area to marketing area, please contact the selling agency for information concerning the applicable warranty and/or service policies.

* Voice numbers not enclosed in boxes are common PSR-64 and standard voices.

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